

WHAT IS CLAIMED IS:

1. A semiconductor processing system, comprising:
 - a variable volume chamber to provide a material for a semiconductor process;
 - a pressure detector to detect a parameter indicative of a pressure of the variable volume chamber and to produce an output indicative thereof; and
 - a pressure controller in communication with the pressure detector and the variable volume chamber, the pressure controller to apply a force to the variable volume chamber based on the output of the pressure detector.
2. The system of claim 1, wherein the pressure controller is to apply the force to keep the pressure of the variable volume chamber substantially constant.
3. The system of claim 1, further including a processing chamber, and wherein the variable volume chamber is to provide a precursor material to the processing chamber.
4. The system of claim 3, wherein the precursor material is to react with another material in the processing chamber.

5. The system of claim 1, wherein the semiconductor process is a chemical vapor deposition process.

6. The system of claim 1, wherein the semiconductor process is an atomic layer deposition process.

7. The system of claim 1, wherein the variable volume chamber comprises a bellows.

8. The system of claim 7, wherein the bellows is included in a pressurization region.

9. The system of claim 8, wherein the pressure controller comprises a gas source to selectively communicate with the pressurization region.

10. The system of claim 9, wherein the gas source is to selectively communicate with the pressurization region when the pressure of the pressurization region is below a desired pressure.

11. The system of claim 8, wherein the pressure controller comprises a vacuum source to selectively communicate with the pressurization region.

12. The system of claim 11, wherein the vacuum source is to selectively communication with the pressurization region when the pressure of the pressurization region is above a desired value.

13. The system of claim 1, wherein the variable volume chamber comprises a piston.

14. The system of claim 13, wherein the parameter indicative of the pressure is a force on the piston.

15. The system of claim 1, further including another variable volume chamber.

16. A method, comprising:
transmitting a material from a variable volume chamber to a semiconductor processing chamber;
during the transmitting, detecting a parameter indicative of a pressure in the variable volume chamber; and
changing the volume of the variable volume chamber based on the detecting.

17. The method of claim 16, wherein changing the volume of the variable volume chamber based on the detecting comprises increasing the volume of the variable volume chamber if the parameter indicates that the pressure is greater than a desired pressure.

18. The method of claim 16, wherein changing the volume of the variable volume chamber based on the detecting comprises decreasing the volume of the variable volume chamber if the parameter indicates that the pressure is less than a desired pressure.

19. The method of claim 16, wherein the detecting comprises detecting a pressure of a pressurization region exterior to the variable volume chamber.

20. The method of claim 19, wherein changing the volume of the variable volume chamber comprises increasing the pressure of the pressurization region.

21. The method of claim 19, wherein changing the volume of the variable volume chamber comprises decreasing the pressure of the pressurization region.

22. The method of claim 16, wherein changing the volume of the variable volume chamber comprises applying a force to a piston.

23. A chemical delivery system, comprising:

a variable volume chamber having an outlet, the outlet to transport a material from an interior region of the variable volume chamber to another region;

a pressure detector to detect a parameter indicative of a pressure of the variable volume chamber and to produce an output indicative thereof; and

a pressure controller in communication with the pressure detector and the variable volume chamber, the pressure controller to apply a force to the variable volume chamber based on the output of the pressure detector.

24. The system of claim 23, wherein the pressure controller is to apply the force to keep the pressure of the variable volume chamber substantially constant.

25. The system of claim 23, wherein the variable volume chamber comprises a bellows.

26. The system of claim 25, wherein the bellows is included in a pressurization region.

27. The system of claim 26, wherein the pressure controller comprises a gas source to selectively communicate with the pressurization region.

28. The system of claim 26, wherein the pressure controller comprises a vacuum source to selectively communicate with the pressurization region.

29. The system of claim 23, wherein the variable volume chamber comprises a piston.

30. The system of claim 23, further including another variable volume chamber.